

## ERIE COUNTY DEPARTMENT OF HEALTH Lead Poisoning Primary Prevention Program

# LEAD IN SOIL

### HOW LEAD GETS IN THE SOIL:

Lead is a heavy metal that is found naturally in soil and underground. But if you live in an older urban area, lead levels in soil around your home and yard may be much higher due to pollution and contamination from paint and industry.

#### Some sources of higher levels of lead in soil are:

- Chipping, peeling lead based paint from houses and older buildings built before 1980
- Automobile emissions from leaded gasoline, which was used until 1986
- Disposal of scrap metal that contains lead, such as old pipes, roof flashing or lead acid car batteries
- Emissions from industries that used lead in the manufacturing process
- Use of contaminated fill during building and home construction



*Without testing, it is impossible to tell whether soil in your yard contains hazardous levels of lead. The best course of action is to assume that it does, and take precautions.*

If you live in an older home, near a busy street, or in an urban area, your soil may be high in lead. Soil testing can help determine the amount of lead present, but it is best to treat it as though it could be hazardous.

### WHY LEAD IS A HEALTH CONCERN:

Lead is toxic - especially to young children. Risks include brain damage, developmental delays, hearing loss, and behavioral problems. Adults can experience loss of motor control, high blood pressure, headaches, and depression.



#### PEELING PAINT

Deteriorated lead based paint is one of the biggest sources of lead in the soil around older homes.

People can absorb lead into their bodies by breathing it in or swallowing it. The most common exposure pathway is through lead-contaminated house dust from deteriorated paint or soil tracked in from outside.

Once absorbed, it is extremely difficult to remove and can remain in the body for years. Prevention of lead poisoning, through home maintenance and housekeeping, is critically important.

#### IF YOUR SOIL CONTAINS LEAD:

Topsoil in city and urban areas has often been shown to have higher than normal lead content. Lead in soil can become a hazard when grass or other vegetation that would normally cover an area is worn away, exposing the bare ground.

High-traffic areas where children play or people walk can be an exposure source, as can the drip line of a house, or areas where digging or landscaping has exposed the earth.

If your soil contains lead, you can protect your family by keeping areas covered with grass, landscaping, or other protective covering, and restricting children's access to bare soil.

## WHAT YOU CAN DO TO PROTECT YOUR FAMILY:

### Before you begin...

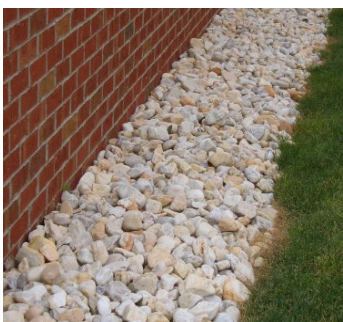
- Examine your yard for drainage, erosion and shade patterns, bare spots and high traffic areas
- Dampen the soil you will be working with to keep down the dust
- Place washable rugs at entrances of your home to prevent tracking in soil

**Create a barrier** - People are exposed to lead through direct contact with contaminated soil or from contact with fine particles carried into the house as airborne dust or on shoes, clothing, or pets. Eliminating the presence of any bare soil is the most effective way to protect your family.

- **Eliminate all bare areas in yard** by planting grass, ground cover or shrubs, or use mulch or stone



*Children's play areas can be a source of lead exposure. Make sure all areas of bare soil are covered by protective fabric and fresh, clean soil and/or mulch.*



*Keep drip lines and high traffic bare soil areas covered with mulch or other barriers.*

- **Maintain healthy grass** or other vegetation in your yard. Some areas may need extra care, such as fertilizer or watering, to keep a coverage of grass
- Areas under **drip lines and downspouts** are especially prone to bare spots. One option is to place mulch, stone, or other landscaping in these areas to serve as a barrier. Use landscape fabric on top of the soil to keep the materials from mixing with the soil.



### IF YOU HAVE A VEGETABLE GARDEN

- Use raised beds with clean, fresh soil
- Locate as far as possible from roads, driveways and old painted structures
- Lay down mulch to cover any bare soil
- Keep soil pH 6.5-7.0 to help prevent absorption
- Wash all vegetables well, peel root crops, discard outer & older leaves of leafy vegetables.

Each year in Erie County, between three and four hundred children are diagnosed with lead poisoning. Over two thousand are tested to have levels which are still considered harmful.

### Other tips:

- Thoroughly **wash hands** when working in soil (especially young children)
- **Remove shoes** prior to entering the home to avoid tracking in soil and dust

### If you have children or pets...

- Keep them away from any bare soil. Use temporary fencing to keep them out of any areas you're working on until you're finished
- Provide children with a sandbox located away from the road and away from old painted buildings and structures, and keep it covered when not in use

### FOR MORE INFORMATION

Erie County Department of Health  
(716) 961-6800  
[www.erie.gov/health/lead](http://www.erie.gov/health/lead)

NYS Department of Health  
1-800-458-1158  
<http://www.health.ny.gov/environmental/lead>

Environmental Protection Agency  
1-800-424-LEAD  
<http://www.epa.gov/lead>

Center for Disease Control (CDC)  
800-CDC-INFO  
<http://www.cdc.gov/nceh/lead>

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